

# EXHIBIT C

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF MISSOURI  
CENTRAL DIVISION**

COMPREHENSIVE HEALTH OF PLANNED )	)	
PARENTHOOD GREAT PLAINS, et al., )	)	
	)	
Plaintiffs, )	)	
	)	
v. )	)	Case No. 2:16-cv-04313-BCW
	)	
JOSHUA D. HAWLEY, in his official capacity )	)	
as Attorney General of Missouri, et al., )	)	
	)	
Defendants. )	)	

**DECLARATION OF JASON M. LINDO, Ph.D. IN SUPPORT OF PLAINTIFFS’  
SECOND MOTION FOR TEMPORARY RESTRAINING ORDER AND/OR  
PRELIMINARY INJUNCTION**

Jason M. Lindo, Ph.D., declares the following:

1. I am a Professor of Economics at Texas A&M University. Prior to my appointment as full professor on September 1, 2018, I was an Associate Professor of Economics at Texas A&M since 2013.
2. I have been a Research Associate at the National Bureau of Economic Research (NBER) since 2014, and before that, I was a Faculty Research Fellow at NBER since 2011. NBER is the nation’s leading nonprofit economic research organization, studying a wide range of topics, including the effects of public policies.
3. I received a B.A. in economics in 2004, an M.A. in economics in 2005, and a Ph.D. in economics in 2009—all from the University of California, Davis.
4. I have published sixteen research articles in peer-reviewed journals; I am a Specialized Co-editor of *Economic Inquiry* where I handle papers in the areas of health economics, public economics, and policy evaluation; and I am an Associate Editor of the *Journal of Population*

*Economics*. I am also the lead author of a paper examining the effects of two Texas abortion laws on abortion access, entitled: “How Far is Too Far? New Evidence on Abortion Clinic Closures, Access, and Abortions.”<sup>1</sup> The paper was initially released as a NBER Working Paper in April 2017; it was recently revised in August 2018. The peer-reviewed *Journal of Human Resources* invited a resubmission of the prior version of this paper, indicating interest in publishing it.

5. My research interests include applied microeconomics, health economics, issues concerning youth, and econometrics, including the economic effects of abortion and contraceptive policies. My CV is attached as Exhibit 1.

6. I have taught courses on empirical research methods at the undergraduate and Ph.D. levels for ten years. These courses focus on the quantitative methods that economists use to evaluate the causal effects of government programs and other interventions, how these methods overcome problems that often plague correlational analyses, and the conditions under which these methods are appropriate.

7. I have been retained to estimate the empirical effects of increased driving distances caused by the forced cessation of abortion services at the Columbia, Missouri, health center on Missouri women’s ability to access abortion in that state.<sup>2</sup> As I show below, based on my research, if the Columbia clinic is forced to stop providing abortions, we should expect to see at least a 22%

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<sup>1</sup> See Jason M. Lindo et al., *How Far Is Too Far? New Evidence on Abortion Clinic Closures, Access, and Abortions* (NBER Working Paper No. 23366, rev. Aug. 2018), <http://www.nber.org/papers/w23366>.

<sup>2</sup> Although I was asked to analyze the effects of abortion access caused by increases in driving distances to the nearest in-state abortion provider, I note that Columbia is nearly equidistant from St. Louis and the nearest out-of-state provider in Overland Park, Kansas. It is also nearly equidistant from St. Louis and the Kansas City, Missouri, health center, which I understand is not currently providing abortion services but may be able to start again in the future.

annual reduction in abortions among women currently served by that facility due to increases in driving distance to the nearest remaining Missouri abortion facility in St. Louis.

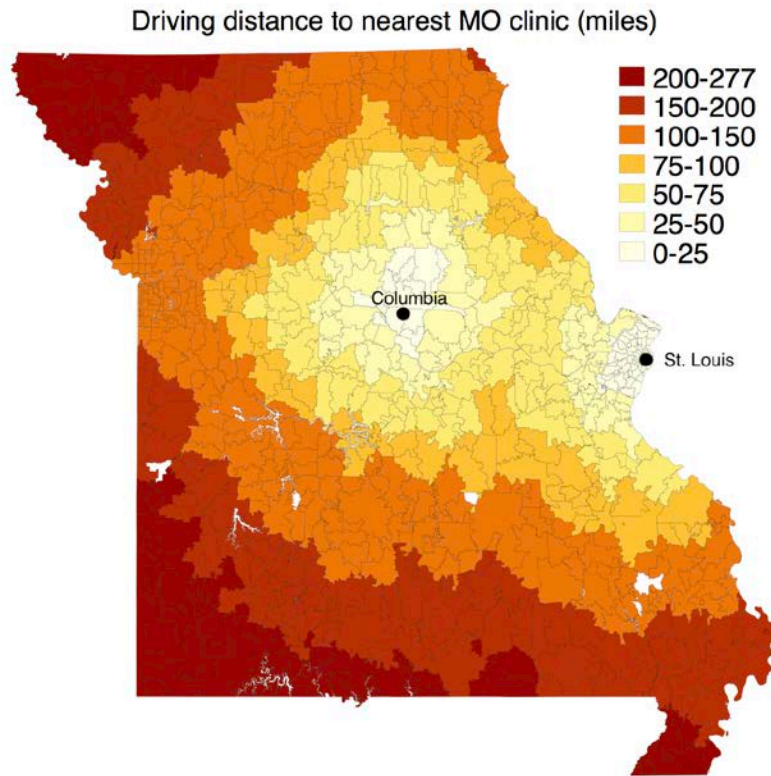
### **Changes in Driving Distances**

8. It is my understanding that, currently, there are only two generally available abortion providers in Missouri: Plaintiff Comprehensive Health's facility in Columbia, and Plaintiff Reproductive Health Services' facility in St. Louis. As it is, many Missouri women already have to travel long distances to obtain an abortion in their state; closing the Columbia clinic will greatly increase those distances. These increased distances will prevent a significant number of Missouri women from obtaining a legal abortion in Missouri.

9. Current and expected change in driving distance, if the Columbia facility is forced to cease abortion services, can be visualized in the following maps. The graphics depict driving distances from the population centroid (i.e., the population center of an area) of each zip code tabulation area to the closest abortion facility (either to the Columbia facility or the St. Louis facility)—using the “georoute module” for Stata, which draws on information from Google Maps.

10. The following map shows the current driving distances Missouri women travel to reach the nearest abortion facility in Missouri in Columbia or St. Louis. As this graphic shows, women along the northern, western, and southern borders of the state already must travel extremely long distances to obtain an abortion—generally more than 100 miles.

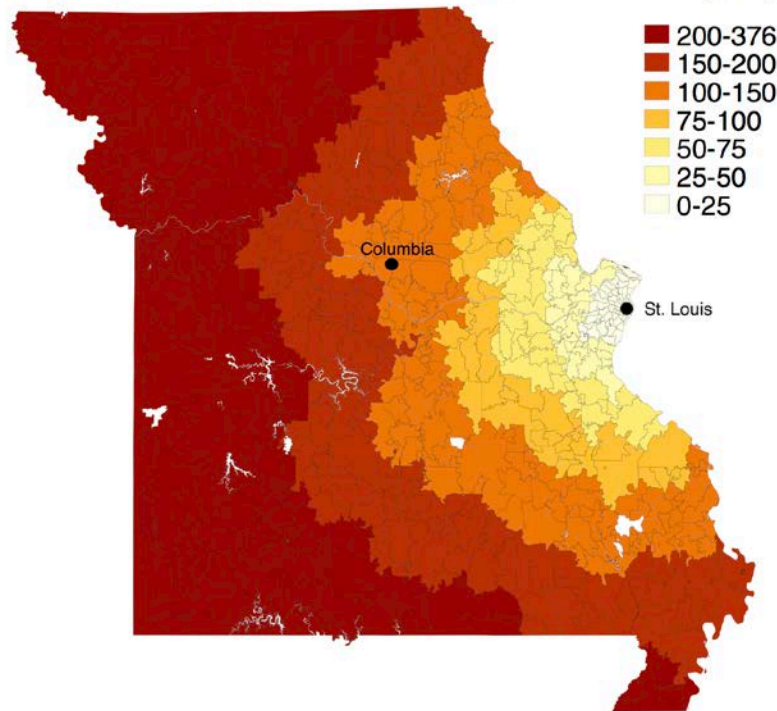
Graphic 1



11. If the Columbia clinic is forced to stop providing abortion services, leaving the entire state with only one provider in eastern Missouri, the St. Louis facility, the entire western part of the state will be 150 or more miles away from the nearest in-state abortion provider, and most of the state's counties will be 100 or more miles away.

Graphic 2

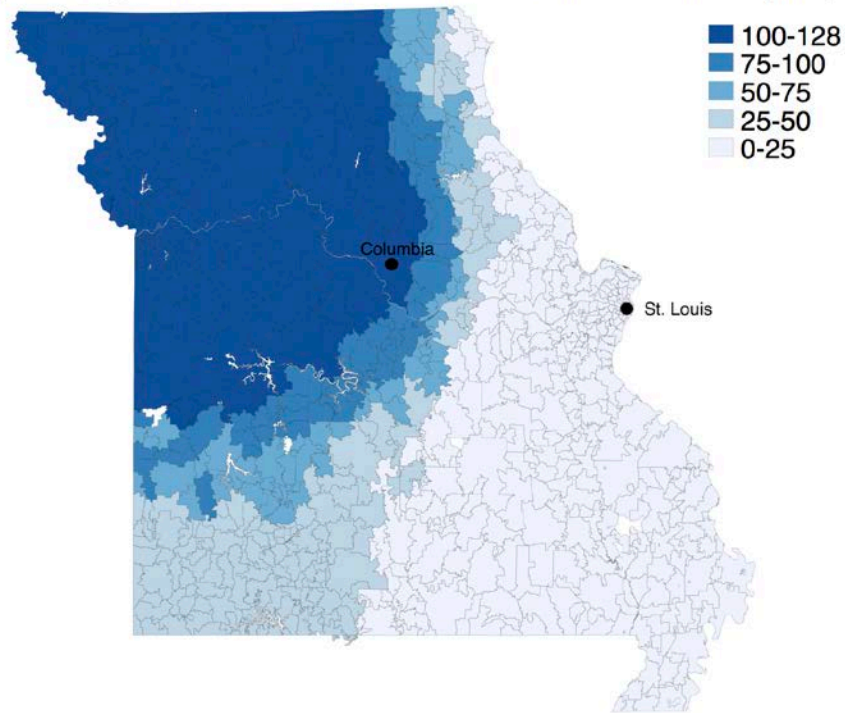
Driving distance to nearest MO clinic if Columbia clinic closes (miles)



12. For women in the central and southwest part of the state, the cessation of abortion services at the Columbia clinic will result in women residing in those areas traveling at least an *additional* 50 miles to obtain an abortion in St. Louis. Women in west and northwest Missouri will experience a change in distance of 100 or more miles. The following graphic reflects the change in driving distance women across Missouri will face if the Columbia clinic stops providing abortions and women's only in-state option is the St. Louis clinic.

Graphic 3

Change in driving distance to nearest MO clinic if Columbia clinic closes (miles)



13. The change in driving distance to access abortion caused by the Columbia clinic's closure will affect a significant number of Missouri women, given the number of Missouri women who reside closer to the Columbia facility than the St. Louis facility.

14. As reflected in the following table, based on U.S. Census Bureau data, there are approximately 24,228 women of reproductive age (15–44 years) for whom the Columbia facility is the nearest abortion provider. If that facility were to stop providing abortions, 100% of these women will have to travel at least 50 miles to access care in St. Louis. Although 71.8% of these women currently need to travel more than 100 miles to obtain care in Columbia, 25.5% more—or 97.3% of all reproductive-age women with the Columbia facility as their nearest abortion provider—will need to travel that distance to reach their nearest in-state abortion provider if the Columbia facility stops providing abortions. Most strikingly, if the Columbia facility stops providing abortions this change will increase the share of these women who need to travel at least

150 miles by 47.2 percentage points (from 37.7 to 84.8%) and it will increase the share of these women who need to travel 200 or more miles by 48.0 percentage points (from 17.5 to 65.5%).<sup>3</sup>

Table 1

<b>Driving Distance to Nearest Missouri Clinic, Missouri Women Aged 15-44 with Columbia Clinic as their Nearest Option</b>			
	<u>Current</u>	<u>If Columbia Clinic Closes</u>	<u>Difference</u>
% farther than 25 miles	97.2	100	2.8
# farther than 25 miles	23,550	24,228	678
% farther than 50 miles	91.6	100	8.4
# farther than 50 miles	22,191	24,228	2,037
% farther than 75 miles	80.7	99.5	18.8
# farther than 75 miles	19,569	24,119	4,550
% farther than 100 miles	71.8	97.3	25.5
# farther than 100 miles	17,407	23,578	6,171
% farther than 150 miles	37.7	84.8	47.2
# farther than 150 miles	9,125	20,549	11,424
% farther than 200 miles	17.5	65.5	48.0
# farther than 200 miles	4,245	15,872	11,627

<sup>3</sup> These distances are one-way; I understand that, under Missouri law, a woman seeking an abortion must make two visits to the abortion provider at least 72 hours apart and must meet with the same physician who will provide the abortion during those two visits.



15. These observations are more stark when calculating the change in driving distance of the Columbia clinic's actual patients. I obtained from Plaintiffs' counsel the number of abortions provided at the Columbia facility from October 30, 2018—when it started providing surgical abortion after obtaining its current license—through June 30, 2018. The data include the patient's zip code of residence.<sup>4</sup> The data show that, if the Columbia clinic had stopped providing abortions, 99% of its patients would have had to travel more than 25 miles to obtain an abortion in Missouri, 96.7% would have had to travel more than 50 miles, 95.6% would have had to travel more than 75 miles, 95.6% would have had to travel more than 100 miles, and 20.9% would have had to travel more than 150 miles.

Table 2

<b>Driving Distance to Nearest Missouri Clinic, Missouri Women Having an Abortion 10/30/18–6/30/18 at Columbia Clinic</b>			
	<u>Current</u>	<u>If Columbia Clinic Closes</u>	<u>Difference</u>
% farther than 25 miles	44.0	99.0	55.0
# farther than 25 miles	40	90	50
% farther than 50 miles	22.0	96.7	74.7
# farther than 50 miles	20	88	68
% farther than 75 miles	13.2	95.6	82.4

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<sup>4</sup> This data is provided by county of residence in Graphic 6, below.

# farther than 75 miles	12	87	75
% farther than 100 miles	3.3	95.6	92.3
# farther than 100 miles	3	87	84
% farther than 150 miles	1.1	20.9	19.8
# farther than 150 miles	1	19	18
% farther than 200 miles	0.0	3.3	3.3
# farther than 200 miles	0	3	3

### **Estimated Effect if the Columbia Clinic Stops Providing Abortion**

#### *LMSC Study*

16. As stated above, my colleagues and I recently published a revised version of our paper, “How Far Is Too Far? New Evidence on Abortion Clinic Closures, Access, and Abortions,” which I refer to in shorthand as “LMSC” (which is short for Lindo, Myers, Schlosser, and Cunningham).<sup>5</sup>

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<sup>5</sup> LMSC was initially released as a National Bureau of Economics Research Working Paper in April 2017. It is typical for economists to release working papers to make their work public, because the publication process in economics is notoriously slow. In most cases, there is a several year lag between the release of a working paper and publication. LMSC has been presented to peers in invited seminars at Middlebury College, Sam Houston University, Southern Methodist University, the University of California-Merced, University of Kansas, Victoria University, and Williams College. It has also been presented to peers at the Stata Texas Empirical Microeconomics Conference, 2017 Annual Conference of the Southern Economic Association, 2018 Annual Conference of the Eastern Economic Association, and 2018 National Bureau of Economics Research Health Economics meeting.

17. This study evaluates the causal effects of changing access to abortion clinics, as measured by women's distance to their nearest abortion clinic and the "average service population," which is a measure of congestion (i.e., availability of appointments at the remaining abortion clinics). The study uses a difference-in-differences methodological approach, one of the most widely accepted approaches to estimating causal effects in the absence of experimental data. This research technique allows us to study the effects of an intervention that differentially affects observations that can be thought of as being in treatment and control groups.

18. The strength of this methodology is predicated on observing abortion rates for a large number of counties over many years, some of which experience large changes in abortion access and others that experience small (or no) changes in abortion clinic access. This makes it possible to account for systematic differences in abortion rates across counties and also for how abortion rates are evolving over time due to factors besides abortion clinic access. In simpler terms, we compared the counties in which there was no increase in the distance-to-nearest clinic in the periods before and after HB2's admitting-privileges requirement took effect with the counties that experienced an increase in the distance-to-nearest clinic over that same time period.<sup>6</sup> This approach assumes proportional changes in abortion rates would have been the same across Texas but for changes in clinic access.

19. We tested the validity of this approach to the specific setting we studied with several "diagnostic tests." Diagnostic tests are a critical component of any rigorous analysis of causal effects, and they are necessary for the estimated effects to be interpreted as causal as opposed to simply correlational. For a study that uses a difference-in-differences approach like

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<sup>6</sup> The estimates also make use of comparisons between counties experiencing smaller versus larger changes in distance-to-nearest clinic after the admitting privileges requirement went into effect.

ours, it is necessary to test whether historical trends in the outcome of interest (e.g., abortion rates) are related to changes in the causal variable of interest (e.g., distance to nearest abortion clinic). If they are related, it can lead to spurious estimates. For example, if abortion rates were already falling at a faster-than-average rate in counties that experienced increases in distance to abortion clinics, we would obtain spurious estimates indicating that increases in distance reduce abortion rates. We confirm that this is not the case. Similarly, diagnostic tests can be used to rule out the possibility that the estimate of the causal effect is confounded by changes in other factors related to the outcome of interest (e.g., access to family planning services, demographics).

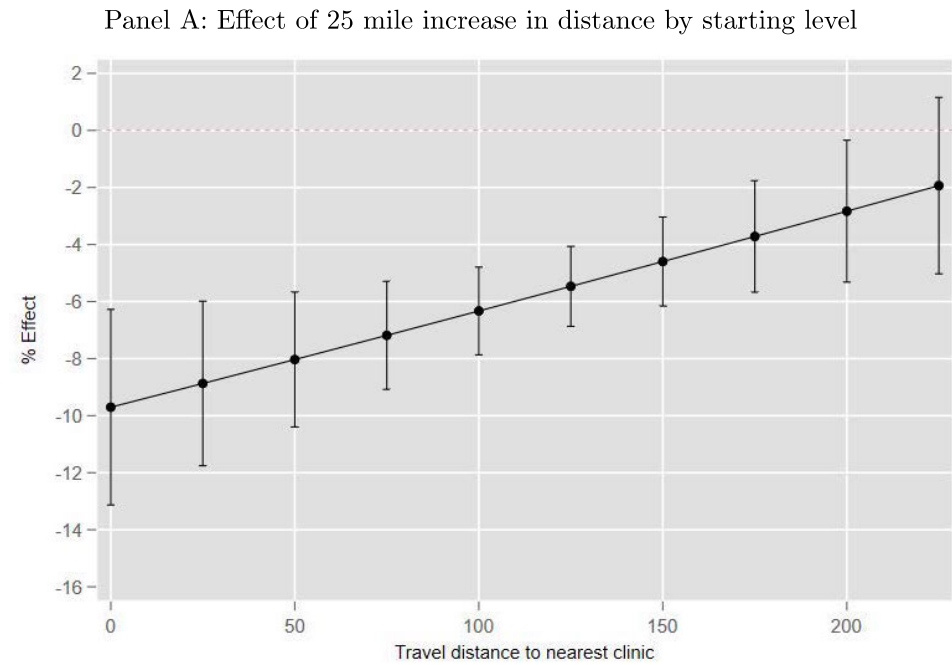
20. The results presented in LMSC are based on a Poisson model operationalization of the difference-in-differences model. The data include the number of abortions per 1,000 women aged 15–44 years for residents of each Texas county from 2009–2015. As such, the data contain 1,778 observations. The empirical model estimates county abortion rates as a function of access to abortion clinics, as measured by distance to the nearest abortion clinic and the “average service population.” It controls for “county fixed effects” and “year fixed effects,” thus making it a “difference-in-differences” model. It additionally controls for a rich set of variables capturing how demographics are changing over time and how access to family planning clinics has changed over time.

21. The time period under analysis in LMSC includes several years before and after Texas HB2, which involved regulations that caused nearly one-half of the abortion clinics in the state to shut down. These closures led to substantial changes in access to abortion clinics for some counties in Texas and small (or no) changes in other counties. This makes it possible to evaluate the effects of changes in abortion clinic access by comparing changes in abortion rates for women in the former counties versus the latter.

22. Earlier versions of LMSC report results of our estimates of the causal effects of access to abortion clinics based on whether a county was 0–50, 50–100, 100–150, 150–200, or more than 200 miles from the nearest abortion provider. For instance, the initial version (released in April 2017) found that, after controlling for congestion, a distance of 50–100 miles as opposed to 0–50 miles from the nearest abortion provider reduces legal abortion rates by 16%, a distance of 100–200 miles as opposed to 0–50 miles reduces abortion rates by 32%, and a distance of 200 or more miles as opposed to 0–50 miles to the nearest abortion clinic reduces abortion rates by 47%. A subsequent version (released in January 2018) found that having a clinic 50–100 miles away reduces abortions by 15%, having the nearest clinic 100–150 miles away reduces abortions by 25%, and having the nearest clinic 150–200 miles away reduces abortions by 40%. As we noted in both of the earlier versions, the evidence indicated substantial non-linearities in the effects of distance. In other words, the same change in distance (e.g., 50 miles) has different effects depending on the initial distance (e.g., 0 miles vs. 100 miles).

23. Thus, we revised the paper to include a refined model that could capture the non-linear effects of distance. Our refined empirical model is specified so that abortion rates are a quadratic function of distance to the nearest clinic and a quadratic function of the congestion measure. Figure 6 Panel A in LMSC, which is reproduced as Graphic 4 below, shows that this refinement allowed us to see more clearly that the effects of increasing distance is larger from small initial distances than from larger initial distances.

#### Graphic 4



24. As this graphic implies, and what we reported in Table 2 of the paper, if the nearest clinic is 0 miles away, a 25-mile increase in distance is estimated to reduce the abortion rate approximately 10%, which suggests that modest initial increases in distance have substantial effects on abortion rates. If the starting point is 25 miles away, a 25-mile increase reduces the abortion rate by approximately 9%; 8% if the starting point is 50 miles; 6% if the starting distance is 100 miles.

25. As these findings show, the effects of increases in distance are smaller when the nearest clinic is initially more distant. Intuitively, once the nearest clinic is already quite distant, further increases in distance have little additional effect. For instance, if the nearest clinic is already 200 miles away, a 25-mile increase does not have a statistically significant effect on the abortion rate (about 3%).

26. Using this refined model, we determined there would have been 119,730 legal abortions in 2014–2015 to Texas women, rather than the 107,830 observed abortions in the two

years after HB2's enactment, if abortion clinic access was not reduced—a difference of approximately 10%. We determined that 41% of that decline was due to increased driving distances and the remainder to congestion. Our findings indicate that travel distance has a substantial and non-linear effect on abortion rates.

27. The results of this study are also supported by similar findings reported in Grossman, White, and Hopkins (2017),<sup>7</sup> Quast, Gonzalez, and Ziemba (2017),<sup>8</sup> and Fischer, Royer, and White (2018).<sup>9</sup> The results in Quast, Gonzalez, and Ziemba (2017) are notably smaller, which is consistent with their acknowledgement that measurement error is likely to bias their estimates towards zero. As such, it is not surprising that more recent studies using superior data find evidence of larger effects. It is also worth noting that Fischer, Royer, and White (2018) find similar results even though they use data from a longer period of time than LMSC.

#### *Application to Missouri*

28. Though Missouri and Texas have very similar trends in abortion rates, based on abortion data reported by the health departments in each state (combined with population estimates from the U.S. Census), the abortion rate in Missouri has historically been lower than in Texas. Moreover, the abortion rate is still lower for Missouri counties from which women were served by the Columbia facility in the time period from October 30, 2017, through June 30, 2018, which I call the Columbia Clinic Service Area. Differences between the Columbia Clinic Service Area and Texas as a whole could mean that applying the LMSC results for the entire state of Texas to

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<sup>7</sup> Daniel Grossman et al., *Change in Distance to Nearest Facility and Abortion in Texas, 2012 to 2014*, 317 JAMA 437 (Jan. 2017).

<sup>8</sup> Troy Quast et al., *Abortion Facility Closings and Abortion Rates in Texas*, 54 Inquiry 1 (2017).

<sup>9</sup> Stefanie Fischer et al., *The Impacts of Reduced Access to Abortion and Family Planning Services: Evidence from Texas* (NBER Working Paper No. 23634, rev. Dec. 2017).

Missouri would understate or overstate the effects that would be observed for patients of the Columbia clinic.

29. Thus, in order to improve the degree to which estimates based on Texas can be extrapolated to these Missouri women, I analyze a subset of Texas counties that are selected and weighted based on their ability to predict abortion rates for the Columbia Clinic Service Area as closely as possible from 2001–2012 (when abortion clinic access was relatively stable in Texas).<sup>10</sup> Critical to the validity of this approach, it is possible to construct a “Simulated Columbia Clinic Service Area” from Texas counties that is extremely similar to the Columbia Clinic Service Area in its abortion rates from 2001–2012.<sup>11</sup> This indicates that abortion rates for this combination of Texas counties is highly predictive of abortion rates for residents of the Columbia Clinic Service Area. This approach is based on the “synthetic control approach,” which offers a data-driven approach to selecting comparison groups.<sup>12</sup> I use the set of Texas counties in this Simulated Columbia Clinic Service Area to estimate the effects of changes in access using the exact same methodology as LMSC. The resulting estimates indicate that the percent reduction in abortion

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<sup>10</sup> A visual depiction of the subset of Texas counties selected because of their similarity to Missouri—and the weights given to the population in each county—is provided in Appendix A.

<sup>11</sup> Any Texas county known to have an out-of-state clinic as the nearest clinic (based on LMSC) at some point in time is eliminated as a possible contributing county. This choice ensures that the measure of access as defined in LMSC—distance to nearest clinic—is consistent with the measure that I understand from Plaintiffs’ counsel is of legal relevance—distance to nearest in-state clinic. Any county within 100 miles of a border crossing to Mexico is also eliminated as a possible contributing county, because women in these counties may be expected to have better access to drugs to self induce abortion in a manner that women in the rest of Texas and women in Missouri do not. Each of these restrictions leads to more conservative estimates of the effect of increased distance to clinics on abortion rates.

<sup>12</sup> Athey and Imbens (2017) describe these methods as “one of the most important [tools developed] in program evaluation in the last decade.” Susan Athey & Guido W. Imbens, *The State of Applied Econometrics: Causality and Policy Evaluation*, 31 J. Econ. Persps. 2 (2017).

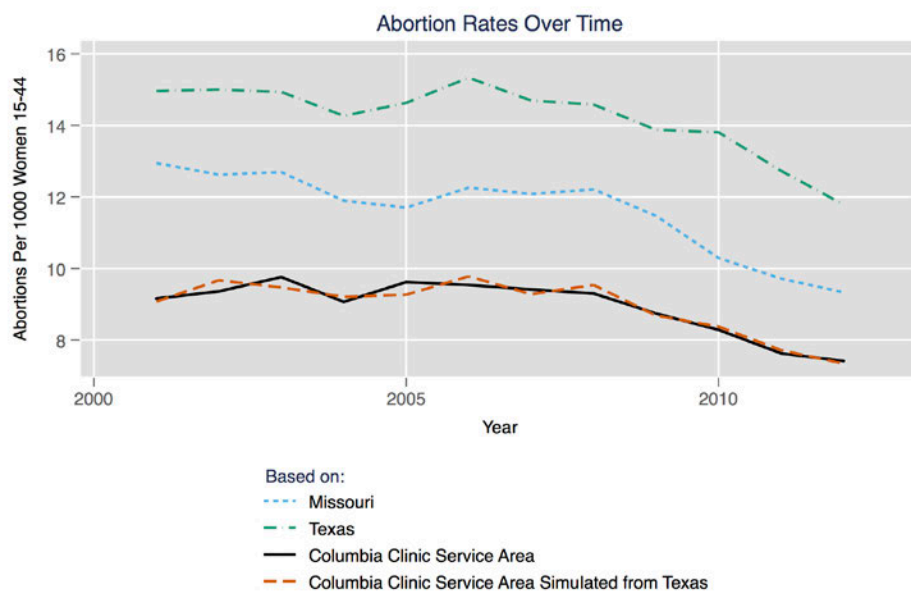


expected to result from an increase in distance to the nearest clinic from an initial distance of “ $D0$ ” miles to a new distance of “ $D1$ ” miles is characterized by the formula

$$\% \text{ Effect} = 100(e^{\frac{0.083(D1^2 - D0^2)}{100^2}} - \frac{0.375(D1 - D0)}{100} - 1)$$

up to a distance of 226 miles beyond which additional increases in distance do not continue to reduce abortion rates.

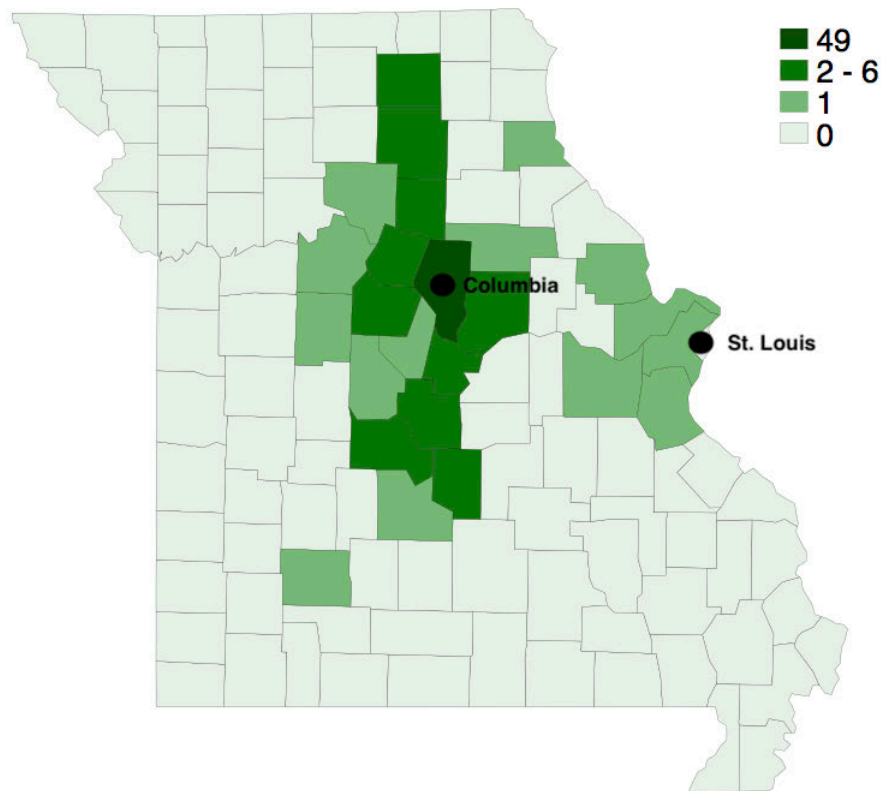
Graphic 5



30. I calculate how the closure of the Columbia clinic would change the distance to the nearest in-state clinic for all women obtaining an abortion at the Columbia clinic between October 30, 2017 and June 30, 2018 and apply the formula above to predict the effect of the Columbia clinic ceasing to provide abortions. The number of Missouri women obtaining an abortion at the Columbia facility during this time period is shown by county of residence in the below graphic.

Graphic 6

Abortions at Columbia clinic by county of residence, 10/30/17-6/30/18



31. Based on the refined analysis in LMSC and using a modified set of counties that is predictive of abortion rates for the Columbia Clinic Service Area, I estimate that if the Columbia clinic is forced to cease providing abortions, we should expect a reduction in abortions caused by increases in distance to the remaining Missouri clinic in St. Louis: 30 abortions annually, or 21.9% of those provided at the Columbia clinic each year.

32. Importantly, this model is based on a one-way drive to the nearest abortion provider and does not take into account the return trip or multiple trips, or the effects of intervening days between an initial visit for consenting and a subsequent visit for the procedure. As noted above, I understand Missouri requires all women seeking an abortion to make two visits to the same

abortion provider at least 72 hours apart.<sup>13</sup> While there is a waiting period requirement in Texas, it is waived for women who live more than 100 miles from a clinic. For this reason, my estimate should be viewed as conservative.

33. Although the above model does not provide an estimate of congestion or delay, there is some evidence that additional women will be delayed in obtaining an abortion, including *Finer (2006)*, which found that three-fifths of the surveyed women who indicated that they would have preferred to have their abortions earlier reported that the delays occurred because it took time to make the arrangements.<sup>14</sup>

I declare under penalty of perjury that the foregoing is true and correct.

Dated: September 19, 2018

s/ Jason M. Lindo

Jason M. Lindo, Ph.D.

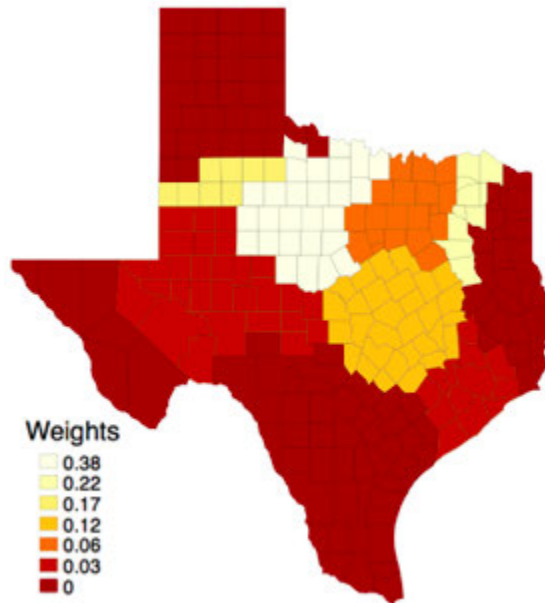
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<sup>13</sup> In LMSC, we did not research the effects of multiple trips to an abortion provider because in Texas the state-mandated 24-hour waiting period is waived if the woman lives at least 100 miles from the nearest abortion provider.

<sup>14</sup> Lawrence B. Finer et al., *Timing of Steps and Reasons for Delays in Obtaining Abortions in the United States*, 74 *Contraception* 334, 335, 341 (2006).

## Appendix A

### Weights



Based on an analysis of these specific Texas counties, each weighted by the number indicated in the legend, the estimated effect on abortion of increasing distance to the nearest abortion clinic from an initial distance of “ $D_0$ ” miles to a new distance of “ $D_1$ ” miles is characterized by the formula

$$\% \text{ Effect} = 100(e^{\frac{0.083(D_1^2 - D_0^2)}{100^2}} - \frac{0.375(D_1 - D_0)}{100} - 1)$$

up to a distance of 226 miles beyond which additional increases in distance do not continue to reduce abortion rates. The estimated effects based on this weighted subset of Texas are smaller than the those based on all Texas counties.

# EXHIBIT 1

# JASON M. LINDO

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## CURRENT POSITIONS

Professor of Economics, Texas A&M University, 2018–Present  
Fellow, Center for Health Systems & Design, Texas A&M University, 2018–Present  
Visiting Research Scholar, Montana State University, 2016 – Present  
Fellow, Global Labor Organization, 2017–Present  
Research Associate, National Bureau of Economic Research (NBER), 2014–Present  
Research Fellow, Institute for the Study of Labor (IZA), 2010–Present  
Co-Editor, *Economic Inquiry*, 2016–Present  
Associate Editor, *Journal of Population Economics*, 2016–Present

## PREVIOUS POSITIONS

Associate Professor of Economics, Texas A&M University, 2013–2018  
Visiting Principal Fellow, University of Wollongong, 2012–2014  
Faculty Research Fellow, National Bureau of Economic Research (NBER), 2011– 2014  
Assistant Professor of Economics, University of Oregon, 2009–2013

## EDUCATION

Ph.D., Economics, University of California, Davis, 2009  
M.A., Economics, University of California, Davis, 2005  
B.A., Economics, University of California, Davis, 2004

## RESEARCH AND TEACHING INTERESTS

Applied microeconomics, health, issues concerning youth, econometrics

## PUBLICATIONS

### Refereed Articles

- Lindo, Jason M., Jessamyn Schaller, and Benjamin Hansen. **"Caution! Men Not At Work: Gender Specific Labor Market Conditions and Child Maltreatment,"** *Journal of Public Economics*, 163, pp. 77-98, 2018.
- Lindo, Jason M. and María Padilla-Romo. **"Kingpin Approaches to Fighting Crime and Violence: Evidence from Mexico's Drug War,"** *Journal of Health Economics*, 58, pp. 253-268, 2018.
- Bondurant, Samuel, Jason M. Lindo, and Isaac D. Swensen. **"Substance Abuse Treatment Centers and Local Crime,"** *Journal of Urban Economics*, 104, pp. 124-133, 2018.
- Lindo, Jason M., Peter Siminski, and Isaac D. Swensen. **"College Party Culture and Sexual Assault,"** *American Economic Journal: Applied Economics*, 10(1), pp. 236-65, 2018.
- Lindo, Jason M. and Analisa Packham. **"How Much Can Expanding Access to Long-Acting Reversible Contraceptives Reduce Teen Birth Rates?"** *American Economic Journal: Economic Policy*, 9(3), pp. 348-76, 2017.
- Barreca, Alan I., Jason M. Lindo, and Glen R. Waddell. **"Heaping-Induced Bias in Regression-Discontinuity Designs,"** *Economic Inquiry*, 54(1), pp. 268–293, 2016.
- Lindo, Jason M., Peter Siminski, and Oleg Yerokhin. **"Breaking the Link Between Legal Access to Alcohol and Motor Vehicle Accidents: Evidence from New South Wales,"** *Health Economics*, 25(7), pp. 908–928, 2015.

- Lindo, Jason M. **"Aggregation and the Estimated Effects of Economic Conditions on Health,"** *Journal of Health Economics*, 40, pp. 83–96, 2015.
- Lindo, Jason M. and Charles Stoecker. **"Drawn into Violence: Evidence on 'What Makes a Criminal' from the Vietnam Draft Lotteries,"** *Economic Inquiry*, 52(1), pp.239–258, 2014.
- Lindo, Jason M., Isaac D. Swensen, and Glen R. Waddell. **"Alcohol and Student Performance: Estimating the Effect of Legal Access,"** *Journal of Health Economics*, 32(1), pp. 22–32, 2013.
- Lindo, Jason M., Isaac D. Swensen, and Glen R. Waddell. **"Are Big-Time Sports a Threat to Student Achievement?"** *American Economic Journal: Applied Economics*, 4(4), pp. 254–274, 2012.
- Cuffe, Harold, William T. Harbaugh, Jason M. Lindo, Giancarlo Musto, and Glen R. Waddell. **"Evidence on the Efficacy of School-Based Incentives for Healthy Living,"** *Economics of Education Review*, 31(6), pp. 1028–1036, 2012.
- Barreca, Alan I., Melanie Guldi, Jason M. Lindo, and Glen R. Waddell. **"Saving Babies? Revisiting the Effect of Very Low Birth Weight Classification,"** *The Quarterly Journal of Economics*, 126(4), pp. 2117–2123, 2011.
- Lindo, Jason M. **"Parental Job Loss and Infant Health,"** *Journal of Health Economics*, 30(5), pp. 869–879, 2011.
- Lindo, Jason M., Nicholas J. Sanders, and Philip Oreopoulos. **"Ability, Gender, and Performance Standards: Evidence from Academic Probation,"** *American Economic Journal: Applied Economics*, 2(2), pp. 95–117, 2010.
- Lindo, Jason M. **"Are Children Really Inferior Goods? Evidence from Displacement-driven Income Shocks,"** *The Journal of Human Resources*, 45(2), pp. 301–327, 2010.

#### **Book Chapters and Other Academic Publications**

- Bailey, Martha J. and Jason M. Lindo. **"Access and Use of Contraceptives and Its Effects on Women's Outcomes in the United States,"** in Susan L. Averett, Laura M. Argys, and Saul D. Hoffman, ed., *Oxford Handbook on the Economics of Women*, New York: Oxford University Press, 2018.
- Lindo, Jason M. and Jessamyn Schaller. **"Economic Determinants of Child Maltreatment,"** in Jürgen Backhaus, ed., *Encyclopedia of Law and Economics*, pp. 1–10, NY: Springer, 2014.
- Lindo, Jason M. and Peter Siminski. **"Should The Legal Age For Buying Alcohol Be Raised to 21 Years?"** *Medical Journal of Australia*, 201(10), p. 571, 2014.
- Page, Marianne, Ann Huff Stevens, and Jason M. Lindo. **"Parental Income Shocks and Outcomes of Disadvantaged Youth in the United States,"** in Jonathan Gruber, ed., *An Economic Perspective on the Problems of Disadvantaged Youth*, pp. 213–235, Chicago: University of Chicago Press, 2009.

#### **Policy Briefs and Editorials**

- Jason M. Lindo, Dave E. Marcotte, Jane E. Palmer, and Isaac D. Swensen, **"Any Press is Good Press? Study Finds Federal Investigations of University Responses to Sexual Misconduct Cases May Help Enrollments,"** *ProMarket: The Blog of the Stigler Center at the University of Chicago Booth School of Business*, August 16, 2018.
- Jason M. Lindo, Peter Siminski, and Isaac D. Swensen, **"Football, College Party Culture, and Sexual Assault,"** *EconoFact*, July 19, 2018.
- Bondurant, Samuel, Jason M. Lindo, and Isaac D. Swensen, **"Access to Substance Abuse Treatment, Drug Overdose Deaths, and Crime,"** *EconoFact*, March 16, 2018.
- Lindo, Jason M. **"Defunding Planned Parenthood Didn't Reduce the Number of Abortions in Texas,"** *Dallas Morning News*, July 6, 2017.
- Lindo, Jason M. and Analisa Packham. **"Lowering the Teenage Birthrate,"** *New York Times*, July 13, 2015.
- Lindo, Jason M. and Analisa Packham. **"Long-acting Reversible Contraceptives Reduced Teen Pregnancies, Especially in Higher-Poverty Areas,"** *UC Davis Center for Poverty Research Policy Brief*, 4(3), 2015.
- Lindo, Jason M. and María Padilla-Romo. **"Kingpin Approaches to Fighting Crime and Violence: Evidence from Mexico's Drug War,"** *Cato Research Briefs in Economic Policy*, No. 31, July 2015.

Lindo, Jason M. **"Gender-Specific Measures of Economic Conditions and Child Abuse,"** *Center for the Study of Women in Society Research Matters*, Spring 2013.

#### Articles Under Journal Review

Cunningham, Scott, Jason M. Lindo, Caitlin Myers, and Andrea Schlosser. **"How Far is Too Far? New Evidence on Abortion Clinic Closures, Access, and Abortions,"** NBER Working Paper No. 23366.

Lindo, Jason M., Dave Marcotte, Isaac D. Swensen, and Jane Palmer. **"Any Press is Good Press? The Unanticipated Effects of Title IX Investigations on University Outcomes,"** NBER Working Paper No. 24852.

#### Articles In Progress

Kelly, Andrea, Jason M. Lindo and Analisa Packham. **"The Effects of Expanded Access to LARCs on Women's Outcomes."**

Kelly, Andrea, Jason M. Lindo and Analisa Packham. **"Contraception Access and Economic Outcomes in the Modern Era."**

Lindo, Jason M. and Mayra Pineda Torres. **"Reassessing The Effects of Mandatory Delay Laws for Abortion."**

Lindo, Jason M. and Emily Zheng. **"Better Economy, More Babies? New Evidence on the Effects of Economic Conditions on Childbearing."**

Lindo, Jason M., Isaac D. Swensen, and Glen R. Waddell. **"Is Intrapersonal Violence Contagious?"**

#### GRANTS AND COMPETITIVE EXTERNAL FELLOWSHIPS

Laura and John Arnold Foundation, PI, 2018

National Institute for Health Care Management Research and Education Foundation, PI, 2017

Turnovsky Fellowship, 2017

US Department of Justice Research Grant, Co-PI with Isaac D. Swensen, Award 2014-R2-CX-0015, 2014

#### INTERNAL GRANTS

Texas Census Research Data Center Proposal Development Grant, 2014

Texas Census Research Data Center Proposal Development Grant, 2013

Center for the Study of Women in Society Faculty Research Grant, University of Oregon, 2012

Junior Professorship Development Grant, University of Oregon, College of Arts and Sciences, 2011

Junior Professorship Development Grant, University of Oregon, College of Arts and Sciences, 2010

Junior Faculty Award, University of Oregon, 2009

Graduate Student Travel Award, UC Davis, 2007

#### HONORS AND AWARDS

Best Graduate Advisor, Texas A&M Department of Economics, 2017

Outstanding Graduate Instructor of the Year, Texas A&M Department of Economics, 2013

Emerging Scholar, Center for Poverty Research, University of Kentucky, 2011

Phi Beta Kappa, 2005

#### PRESENTATIONS

**2017–2018:** University of Kansas, Stata Texas Empirical Micro Conference, Sam Houston State University, Ifo Institute Workshop on Economic Uncertainty and the Family, 18th Annual Southeastern Health Economics Study Group, University of Tennessee, Texas A&M University (Agricultural Economics), Birdsall House Conference on Women (Center for Global Development), Texas A&M University (School of Public Health), University of South Carolina, Columbia University, American University, NBER Health Economics Program Meetings, University of California at Davis, Montana State University Initiative for Regulation and Applied Economic Analysis Conference on "Economics of Reproductive Health Policies"



**2016–2017:** Montana State University, University of Colorado at Boulder, West Virginia University, Fall Meetings of the Association for Public Policy Analysis & Management, Annual Meetings of the American Economics Association, University of California at Merced, Southern Methodist University, Victoria University of Wellington

**2015–2016:** Texas Tech University, Southern Economic Association Annual Meetings, National Institute for Health Care Management Webinar on Adolescent Health and Teen Pregnancy, NBER Children's Program Meetings, China Meeting of the Econometric Society

**2014–2015:** Monash University, University of North Carolina at Charlotte, Baylor University, SOLE/EALE World Meetings

**2013–2014:** Tulane University, University of Texas at Dallas, Dalhousie University, University of Houston and Rice University, University of Wollongong, Victoria University of Wellington, Massey University

**2012–2013:** Labour Econometrics Workshop (Discussant), University of Wollongong, Texas A&M University, University of Illinois at Urbana-Champaign, Louisiana State University, Michigan State University, University of California at Merced, 5th Annual Meeting on the Economics of Risky Behaviors, NBER Children's Program Meetings

**2011–2012:** The Australian National University, University of Wollongong, Australian Labour Econometrics Workshop, University of Notre Dame, Case Western Reserve University, University of Maryland, University of Oregon, SOLE Annual Meetings, IZA/SOLE Transatlantic Meeting of Labor Economists

**2010–2011:** NBER Children's Program Meetings, SOLE Annual Meetings, Public Policy and the Economics of the Family Conference at Mount Holyoke College, University of Kentucky, Portland State University

**2009–2010:** Western Economic Association Annual Meetings, American Economic Association Annual Meetings (Discussant), SOLE/EALE World Meetings, The Economics of Family Policy Conference at the University of Bergen, NBER Children's Program Meetings, Economic Demography Workshop, University of British Columbia

**2008–2009:** NBER Higher Education Program Meetings, RAND Corporation, University of Colorado at Denver, Stanford Institute for Economic Policy Research, University of Oregon, The College of William and Mary, Sonoma State University, California State University at Sacramento, All UC Labor Conference, UC Davis Economy, Justice, and Society Retreat, Western Economic Association Annual Meetings

#### **ADDITIONAL PROFESSIONAL ACTIVITIES**

**Referee:** *American Economic Journal: Applied Economics, American Economic Journal: Economic Policy, American Economic Review, American Journal of Health Economics, The B.E. Journal of Economic Analysis and Policy, Contemporary Economic Policy, Demography, Eastern Economic Journal, The Economic Journal, Economics of Education Review, Economic Inquiry, Education Evaluation and Policy Analysis, Empirical Economics, Health Economics, Industrial and Labor Relations Review, Journal of Family and Economic Issues, Journal of Health Economics, The Journal of Human Resources, Journal of The Japanese and International Economies, Journal of Labor Economics, Journal of Labor Research, Journal of Policy Analysis and Management, Journal of Political Economy, Journal of Population Economics, Journal of Public Economics, Journal of the Royal Statistical Society, Labour Economics, Proceedings of the National Academy of Sciences, Public Choice, The Quarterly Journal of Economics, Review of Economics of The Household, Review of Economic Studies, The Southern Economic Journal*

**Reviewer:** National Science Foundation

**Co-organizer or Committee Member:** Montana State University Initiative for Regulation and Applied Economic Analysis Conference on "Economics of Reproductive Health Policies" (Co-organizer), Annual Health Economics Conference 2018 (Committee Member), Economic Demography Workshop 2018 (Committee Member), Midwestern Econometrics Group Meetings 2017 ((Committee Member), Economic Demography Workshop 2017 (Committee Member), 15th Annual Labour Econometrics Workshop 2012 (Committee Member)

**Advisory Board Member:** Michigan Contraceptive Access, Research, and Evaluation Study, 2018–Present

#### **TEACHING EXPERIENCE**

##### **Texas A&M University**

PhD-level Applied Microeconometrics (Fall 13, Fall 14, Spring 15, Spring 16, Spring 17, Spring 18)

Program Evaluation (Fall 14, Spring 14, Spring 16, Spring 17, Spring 18)

**Shanghai University of Finance and Economics**

Short Course in Econometric Methods for Causal Inference (Summer 16)

**University of Oregon**

Graduate Labor Economics (Winter 10, Fall 10, Spring 13)

Topics in Labor Economics (Fall 09, Winter 10, Fall 10, Spring 11, Fall 11, Spring 12, Spring 13)

Economics of Gender (Spring 11, Fall 11, Spring 12)

**GRADUATE STUDENT ADVISING** (including graduation year and initial placement)

**Texas A&M University**

Andrea Kelly (chair, expected 2020)

Roberto Mosquera (co-chair, expected 2020)

Manuel Hoffman (expected 2020)

Joshua Witter (expected 2020)

Brittany Street (expected 2019)

John Anders (expected 2019)

Ruichao Si (expected 2019)

Samuel Bondurant (chair, 2018) US Census Bureau

Abigail Peralta (2018), Louisiana State University

Yongzhi Sun (2018), Southwestern University of Finance and Economics

María Padilla-Romo (chair, 2017), University of Tennessee

Emily Zheng (chair, 2017), Chinese University of Hong Kong - Shenzhen

Jaegum Lim (2017), Korean National Assembly

Analisa Packham (chair, 2016), Miami University

Pierre Mouganie (2015), American University of Beirut

Jillian Carr (2015), Purdue University

**University of Oregon**

Kristian Holden (co-chair, 2014), American Institutes for Research (AIR)

Harold Cuffe (co-chair, 2013), Victoria University of Wellington

Isaac Swensen (co-chair, 2013), Montana State University

Brian Vander Naald (2012), University of Alaska, Juneau

Eric Duquette (2010), Economic Research Service, USDA

**UNIVERSITY SERVICE**

Faculty Senate, 2014-2016

Climate and Diversity Committee, 2015-2016

Academic Affairs Committee, 2014-2015

**DEPARTMENTAL SERVICE**

**Texas A&M University**

Executive Committee, 2017–2018

Graduate Placement Co-director, 2013–2014, 2015-2016, 2017–2018

PhD Qualifier Exam Committee, 2015–present

Graduate Instruction Committee, 2017

Applied Microeconomics Search Committee Chair, 2014–2015  
 Economics Undergraduate Research Opportunities Program Advisor, 2014–2015  
 Applied Microeconomics Search Committee, 2013–2014

#### **University of Oregon**

McNair Scholar Advisor, 2012–2013  
 Graduate Placement Co-director, 2010–2012  
 Undergraduate Program Committee, 2009–2013  
 Seminar Committee, 2009–2010  
 Applied Microeconomics Brownbag Co-organizer, 2009–2010

### **SELECTED MEDIA APPEARANCES AND COVERAGE OF RESEARCH**

#### **Television:**

"Rape on College Campuses," Not Safe with Nikki Glaser (Comedy Central), 7/12/16  
 "College Football and Campus Sexual Assault," Outside The Lines (ESPN), 2/19/16  
 "College Game Day's Disturbing Trend," Watching the Hawks (RT), 1/11/16

#### **Radio:**

"High-Risk Podcasting," Vox's The Weeds, 5/4/17  
 "Is There a Connection Between Football Games and Risks For Rape?" Morning Edition (NPR), 2/17/16

#### **Print:**

"Do campus rape investigations damage colleges? Actually, the opposite may be true," 7/25/18, Salon  
 "Study finds home football games elevate cases of sexual assault" 2/1/18, The Battalion.  
 "Abortion Clinics in Texas Haven't Reopened, and It's Causing Real Damage to Real Women," 5/3/17, Salon  
 "The IUD Revolution," 3/23/16, Vox  
 "Will Nabbing of 'El Chapo' Actually Help Mexico Win the War on Drugs?" 1/23/16, Newsweek  
 "El Chapo Shows The Folly of the War on Drugs," 1/21/16, Time  
 "Less Rape On Campus? Get Rid of College Football," 1/7/16, US News and World Report  
 "Report: Rape Rates at Big Football Colleges Spike on Game Day," 1/16, CBS News  
 "What We Can Learn From That Paper About Campus Rape on Game Days," 12/15, Slate  
 "The Disturbing Truth About College Football and Rape," 12/2015, The Washington Post  
 "College Football, Parties and Rape," 12/2015, Inside Higher Ed  
 "With Less Money, Colorado's Birth Control Program Feels the Pain," 8/2015, The Denver Post  
 "Does Child Abuse Rise During a Recession?" 5/2013, Freakonomics.com  
 "Ticket to Drink Opens Door to Health Woes," 3/2013, Illawara Mercury  
 "How Does Football Success Affect Student Performance?" 10/2012, The Chronicle of Higher Education  
 "Rethinking The Benefits of College Athletics," 3/2012, Forbes  
 "How Big-Time Sports Ate College Life," 1/2012, New York Times  
 "College Football Victories = Worse Grades?" 1/2011, Freakonomics.com  
 "Study Links Winning Football and Declining Grades," 1/2011, New York Times  
 "Football Team Wins, Grades Plummet," 12/2011, The Wall Street Journal  
 "Study: Male Students' Grades Drop When Football Teams Win," 12/2011, USA Today  
 "Winning Football, Declining Grades," 12/2011, Inside Higher Ed  
 "Study: As Ducks Win, Male Grades Drop," 12/2011, ESPN  
 "Guys' Grades Suffer When College Football Teams Win," 12/2011, The Atlantic  
 "Academic Probation Hits College Guys Harder," 5/2010, Science Daily

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